REMARKS

Claim Rejections - 35 USC § 112

The Examiner states there is insufficient antecedent basis for "the layers of carbon nanotubes" recited in claim 22. While previous claim 22 actually refers to "the layers of carbon nanotubes and colored polymeric resin binder", and claim 1 provides adequate antecedent basis for such plurality of combined layers, claim 22 has been amended to refer to such layers individually consistent with claim 1, thereby mooting any perceived indefiniteness.

Claim Rejections - 35 USC § 103

Claims 1, 3, 5-9, 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski (WO 02/076724 Al), as evidenced by Ohtsu (US 6,436,591). This rejection is respectfully traversed.

Regarding claim 1, the Examiner states that Glatkowski teaches a filter (page 14, lines 23-24), comprising a layer of nanotubules covered by a layer of polymeric resin binder (material, page 13, lines 16-17). Contrary to the Examiner's assertions, however, there is no teaching or suggestion that use of a polymeric overcoat as referenced at page 13, lines 16-17 has any relationship to the embodiment of a filter or polarizer at page 14, lines 23-24 as apparently assumed by the Examiner. To the contrary, the reference to filters or polarizers is only made with respect to an embodiment employing a plurality of differentially-oriented nanotube film layers wherein each layer can be oriented and adjusted, rather than to a filter comprising a layer of nanotubes covered by a layer of polymeric resin binder.

The Examiner further states that Glatkowski teaches that the polymeric resin binder can be colored (coloring agent, binder, page 15, lines 5-6), and that it thus it would have been obvious to one of ordinary skill in the art to have colored the polymeric resin binder covering the conductive film layer of carbon nanotubules in the filter of Glatkowski, for the purpose of providing a conductive color filter, "as evidenced by Ohtsu", further arguing Ohtsu teaches a conductive color filter (column 7, lines 20-30), which can be black (column 8, lines 1-5), red, green and blue (column 6, lines 60-65), wherein the polymer

resin binder contains carbon black for the black color filter (matrix, column 8, lines 1-5).

The Examiner's argument with respect to the combined teachings of Glatkowski and Ohtsu is initially flawed in that, as pointed out above, Glatkowski simply does not teach a filter comprising a carbon nanotube layer covered by a polymeric resin binder layer as alleged by the Examiner. Further, the reference to coloring agents (page 15, lines 5-6) is made only within the context of additional optional materials that may be incorporated in a nanotube dispersion suitable for forming the conductive nanotubes coating itself, rather than a polymeric resin layer coated over the nanotube layer. While Ohtsu does disclose a method of making a conductive color filter, Ohtsu teaches using a photoconductor and an electrodeposition technique. In such process, an electrolyte including ionic material, a water soluble polymer, and a colorant and a conductive material (which may be the same material) is electrodeposited to form the conductive color filter layer 15. The present invention is distinguished by forming a conductive color filter comprising a layer of carbon nanotubes covered by a layer of colored polymeric resin binder. There is no teaching or suggestion in Ohtsu or Glatkowski to form a conductive color filter by separately depositing a layer of any conductive material followed by a layer of colored resin coated thereon. Thus, there is no teaching or suggestion of the present invention "evidenced by Ohtsu" as alleged by the Examiner. Rather, the Examiner has apparently selected various components of different embodiments that may be independently disclosed in Glatkowski, and combined them with the improper use of hindsight based on applicant's teachings, in a manner that is not taught or suggested in any way by Glatkowski or Ohtsu.

Even if one were to alternatively substitute or add carbon nanotubes of Glatkowski to the electrolyte of Ohtsu et al, the present invention would not be obtained. To the contrary, carbon nanotubes are not ionic materials, and formation of a layer of such conductive material absent the other required electrolyte components would therefore not be compatible with the described electrodeposition technique. Further, the proposed combination of references would in any event not be obvious to the artisan, as Ohtsu is specifically directed towards manufacture of a conductive color filter employing an electrodeposition process for the deposition of a conductive electrodeposition

material containing a coloring material upon a photoconductive thin film, while Glatkowski has no relevance to electrodeposition processes. There is simply no teaching, disclosure or suggestion identified by the Examiner that the materials of Glatkowski would be suitable for use in an electrodeposition process in accordance with Ohtsu.

Finally, the proposed combination does not establish a prima facie case of obviousness as the Examiner has not identified any reasonably pertinent motivation based on the teachings of Ohtsu which would direct one skilled in the art to modify the teachings of Glatkowski to obtain the claimed invention. The alleged motivation stated by the Examiner for the proposed modification is apparently that while Glatkowski doesn't teach conductive color filters, Ohtsu does. While this might be motivation for one skilled in the art to use the electrodeposition formed color filters as taught by Ohtsu, it does not in any way teach or suggest modifying Glatkowski to employ a layer of carbon nanotubes covered by a separately deposited layer of colored polymeric resin binder to form a conductive color filter. The present invention enables the advantages of being able to initially coat a conductive layer of non-colored carbon nanotubes employing known techniques, and also enabling subsequent formation of conductive colored filters by selective deposition of a colored resin binder, which avoids the complication of an electrodeposition technique, as well as avoiding the complication of formulation and coating of colored carbon nanotube layers. This is not taught by either Ohtsu or Glatkowski. Reconsideration of this rejection is accordingly respectfully requested.

The Examiner's additional comments regarding claims 5-6 and 22 are noted, but additionally are based on the incorrect assertion that the referenced embodiments of Glatkowski are directed towards a conductive filter. To the contrary, the embodiments referenced at page 36 recite use of virgin resin overcoats to form clear and colorless films, not a filter.

Regarding claims 3 and 7-9, the embodiment referenced by the Examiner at page 13, lines 20-25 is again not in any way taught within the context of a conductive filter as alleged by the Examiner. There is simply no teaching or suggestion to employ the referenced conductive layer of ITO in addition to a layer of colored polymeric resin binder. To the contrary, the referenced layer of ITO is apparently cited as one example of an inorganic or organic polymeric over-

coating material that may be employed with the nanotube film (i.e., the ITO layer is apparently taught as an inorganic over-coat layer alternative to an organic polymeric resin overcoat layer, not as an additional layer to be employed in combination with a polymeric resin overcoat material, and further not as an additional layer to be employed in combination with a colored polymeric resin binder layer).

The 35 U.S.C. 103(a) rejections of claims 2, 4, 10-21, 23-24 over Glatkowski as the primary reference are repeated for the same reasons previously of record in the Office action dated 11/29/05. In such previous Office action, Claims 2, 4, 10, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski in view of Ohtsu (US 6,436,591); Claims 11-13, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski in view of Ohtsu (US 6,436,591) and Chung (US 6,426,590); Claims 14-15, 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski in view of Ohtsu and Chung, and further in view of Jones (US 5,672,938); Claims 16, 18, 21, 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski in view of Ohtsu, Chung and Jones, and further in view of Boroson (US 6,226,890); Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Glatkowski in view of Ohtsu, Chung and Jones, and further in view of Yamada (US 5,583,675). These rejections are respectfully traversed.

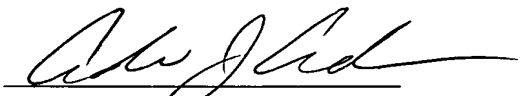
Each of these rejections are apparently based on the Examiner's revised assertion that Glatkowski in view of Ohtsu teaches a conductive color filter comprising a layer of carbon nanotubules covered by a layer of colored polymeric resin binder, which basic assertion is incorrect as explained above. The further cited references do not overcome the basic deficiency of the teachings of Glatkowski and Ohtsu with respect to the present claimed invention, and a prima facie case of obviousness has accordingly not been established. All of claims 1-24 are therefore believed patentable for at least the same reasons as discussed above with respect to the rejections based on Glatkowski in view of Ohtsu. Reconsideration of these rejections is accordingly respectfully requested.

In the "response to Arguments" section, the Examiner argues that "Applicant is respectfully apprised that Glatkowski does teach a conductive filter comprising a layer of carbon nanotubules covered by a layer of resin binder, and that the reference to adding coloring agents to polymeric resin can be applied to the polymeric binder overcoating the layer of carbon nanotubules, since the polymeric binder overcoating the layer of carbon nanotubules is part of the conductive filter, for the purpose of providing a conductive color filter, as evidenced by Ohtsu". Such argument is clearly unsupported by the actual teachings of Glatkowski as discussed above, however. Again, there is no teaching or suggestion to employ the polymeric overcoat embodiment of Glatkowski with the plurality of differentially oriented nanotube layers filters/polarizers embodiment, and further no teaching or suggestion to employ a colored resin binder overcoat layer with any of such embodiments, as opposed to adding coloring agents to a nanotube dispersion. That these "can" be done with the materials of Glatkowski does not equate to a teaching or suggestion to do so in a manner that establishes a prima facie case of obviousness with respect to the present invention. The Examiner's further arguments as to what may be "implied" from, or "within the realm" of Glatkowski similarly do not equate to an actual teaching or suggestion of the presently claimed invention, and do not establish a prima facie case of obviousness. Again, the present invention enables the advantages of being able to initially coat a conductive layer of non-colored carbon nanotubes employing known techniques, and also enabling subsequent formation of conductive colored filters by selective deposition of a colored resin binder, which avoids the complication of formulation and coating of colored carbon nanotube layers as may be taught by Glatkowski.

Withdrawn non-elected process of making claims 25 and 29 include all the limitations of elected product claim 1. Accordingly, rejoinder of such withdrawn claims, and claims 26-28 and 30-31 dependent thereon, upon allowance of elected product claim 1 is respectfully requested.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the Examiner is earnestly solicited. Should the Examiner believe any remaining issues may be resolved via a telephone interview, the Examiner is encouraged to contact Applicants' representative at the number below to discuss such issues.

Respectfully submitted,



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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.